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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,330	03/27/2007	**Kenji Okada**	5404/125	6427

757 7590 07/17/2009

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EXAMINER	
BERMAN, SUSAN W	

ART UNIT	PAPER NUMBER
1796	

MAIL DATE	DELIVERY MODE
07/17/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/561,330	OKADA ET AL.	
	Examiner	Art Unit	
	/Susan W. Berman/	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 June 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22 and 26-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22 and 26-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

The rejection of claims 1, 3-6, 18-20, 23 and 27-30 under 35 U.S.C. 102(e) as being anticipated by Al-Akhdar et al (6,777,459) is overcome.

The rejection of claims 1, 3-6, 18-20, 23 and 26-30 under 35 U.S.C. 102(e) as being anticipated by Thurber et al (6,228,133) is overcome.

Response to Arguments

Thurber et al teach using magnesium stearates and preferred zinc stearates, however, there is no motivation found to select a vinyl polymer having (meth)acrylate terminal groups in combination with a photoinitiator and zinc stearate or magnesium stearates from the disclosure of Thurber et al.

New grounds of rejection are set forth herein below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-6, 15-16, 18-22 and 26-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Blum et al (6,780,897, having a 371 filing date of 03-27-2002). Blum et al disclose compositions comprising 5-95% solid (meth)acrylate copolymer (A) having at least one group with a bond which can be activated with actinic radiation and a solid compound (B) having at least two groups with a bond that can be activated by actinic radiation. Copolymer (A) can preferably have (meth)acrylate functional groups (column 5, lines 38-62, and column 6, lines 32-37). Compound (B), such as a polyurethane, is described in column 10, line 45, to column 20, line 19. A photoinitiator can be bonded to copolymer (A) or to compound (B) or added separately (column 13, lines 23-44, and column 21, lines 46-57). Magnesium stearate can be added as flatting agent (column 22, line 1). See Preparation Example 2 and Examples 1-11. Compositions disclosed by Blum et al containing magnesium stearate anticipate the instant claims.

With respect to claim 2, the (meth)acrylate copolymer can have a dispersity from 1.0 to 5.0, thus including copolymers having a dispersity less than 1.8 (column 4, lines 12-18).

With respect to claims 15-16, Blum teach a polymer-analogous method for preparation of (A) wherein –OH groups are reacted with and isocyanate-functional compound (column 8, line 50, to column 10, line 35).

With respect to claim 18, the disclosed polymers (A) have number-average molecular weights from 850 to 10,000 (column 4, lines 13-15).

With respect to claims 19-22 and 27, photoinitiators and thermal initiators are taught in column 21, lines 36-57.

With respect to claim 26, addition of silica as transparent filler is taught in column 21, lines 62-66.

With respect to claims 28 and 30, the compositions disclosed by Blum et al containing magnesium stearates would be expected have improved mold release properties as instantly claimed, in the absence of evidence to the contrary.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-22 and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blum et al (6,780,897, having a 371 filing date of 03-27-2002), as applied to claims 1-6, 15-16, 18-22 and 26-30, in view of Nakagawa et al (6,964,999, having a 371 filing date of 11-13-2000 and a common inventor). The disclosure of Blum et al is discussed herein above.

Nakagawa et al disclose the vinyl polymer set forth in the instant claims and curable composition thereof. The atom transfer method of preparation in the presence of a transition metal complex is disclosed and is said to produce a polymer having high terminal functionality

and a narrow molecular weight distribution (column 32, lines 1-34). UV or Electron beam curable compositions comprising a monomer/oligomer and a photopolymerization initiator are taught (column 19, line 35, to column 23, line 20). Addition of a zinc or magnesium stearates is not mentioned.

It would have been obvious to one skilled in the art at the time of the invention to employ the acrylic polymer prepared by the method taught by Nakagawa et al as the acrylic polymer in the compositions comprising magnesium stearates taught by Blum et al. One skilled in the art at the time of the invention would have been motivated by a reasonable expectation of providing a useful coating material.

Claims 1-22 and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1 160 266 A1 in view of the Lammerting et al publication "Release Agents" and further in view of Nicholl et al (6,235,228, having a filing date of 04-08-1999).

EP '266 discloses a method for producing a branched polymer by polymerizing a vinyl polymer containing one polymerizable carbon-carbon double bond. The macromer is produced by living radical polymerization, specifically atom transfer radical polymerization, facilitating production of branched polymers with controlled side chain molecular weights. The macromer can be polymerized by radiation or heat. See paragraphs [0014] to [0018]. EP '266 teaches using a transition metal complex as catalyst of atom transfer radical polymerization. Chain transfer agent is taught in paragraph [0039]. EP '266 teaches incorporating a lubricant, such as polyethylene wax [0130]. Use as a molding material is taught [0140]. Addition of a

photoinitiator and irradiation is taught in Example 7-10. EP '266 does not mention adding a metallic soap.

Lammerting et al teach suitable release agents, or lubricants, to eliminate adhesion between surfaces in plastics processing. Metallic soaps are said to have better thermal stability and lubricating properties than waxes.

Nicholl et al disclose a coating powder composition comprising an unsaturated polyester, a thermal initiator or photoinitiator and a mold release agent (column 3, line 59, to column 4, line 18. Metallic soaps of fatty acids, such as zinc stearate, are taught in column 8, lines 41-53.

It would have been obvious to one skilled in the art at the time of the invention to substitute a metallic soap, as suggested by Lammerting et al, for the wax lubricant in the compositions disclosed by EP '266. EO '266 provides motivation by teaching addition of a lubricant such as polyethylene wax. Lammerting et al provide motivation by teaching that metallic soaps have better thermal stability and lubricating properties than waxes. It would further have been obvious to one skilled in the art at the time of the invention to employ a metallic soap such as zinc stearates, as taught by Nicholl et al, as the metallic soap having better thermal stability and lubricating properties than waxes taught by Lammerting et al in the compositions disclosed by EP '266. One skilled in the art at the time of the invention would have been motivated by a reasonable expectation of improving the thermal stability and lubricating properties of the compositions disclosed by EP '266, as taught by Lammerting et al.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1 160 266 A1 in view of the Lammerting et al publication "Release Agents" and further in view of Nicholl et

al, as applied to claims 1-22 and 27-30, and further in view of JP 2000160026. See the discussion of EP '266 and Lammerting et al above. JP '026 discloses moldable composition comprising a heat curing resin, a mineral filler including silica powder and a metallic soap as mold lubricant. It would have been obvious to one skilled in the art at the time of the invention to include a silica mineral filler, as disclosed by J '026, in the analogous molding materials disclosed by EP '266 in combination with Lammerting et al and Nicholl et al. One skilled in the art at the time of the invention would have been motivated by a reasonable expectation of providing a reinforcing filler to provide a suitable molding consistency to the molding compositions taught by EP '266.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Susan W. Berman/ whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SB
7/14/2009

/Susan W Berman/
Primary Examiner
Art Unit 1796